

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re U.S. Patent Application of: )

Applicant: Richard I. Masel et al. )

Serial No.: 10/817,361 )

Conf. No.: 2569 )

Filed: April 2, 2004 )

For: PALLADIUM-BASED )  
ELECTROCATALYSTS AND )  
FUEL CELLS EMPLOYING )  
SUCH ELECTROCATALYSTS )

Art Unit: 1746 )

Examiner: Not yet assigned )

I hereby certify that this paper is being deposited with the United States Postal Service as FIRST-CLASS mail in an envelope addressed to: Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this date.

May 18, 2005

Date

  
Attorney for Applicant(s)  
Registration No. 40,607FIRST SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

Mail Stop Amendment  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

This IDS is submitted under 37 C.F.R. § 1.97(b) within either of the following time periods, whichever occurs last:

- (a) within three months of either the filing date of the national application or the date of entry into the national stage; or
- (b) before the mailing date of first office action on the merits (i.e., not including actions such as restriction requirements).

Applicant(s) submit herewith Form PTO-1449 (Information Disclosure Citation) together with copies of patents, publications or other information of which applicant(s) are aware, which applicant(s) believe may be material to the examination of this application and for which there may be a duty to disclose in accordance with 37 C.F.R. § 1.56. Applicant(s) respectfully submit that the citation of any reference on Form PTO-1449 does not constitute an admission that the reference qualifies as prior art.

It is requested that the information disclosed on the enclosed Form PTO-1449 be made of record in this application.

The Commissioner is hereby authorized to charge any additional fees which may be required to this application under 37 C.F.R. §§ 1.16-1.17, or to credit any overpayment, to Deposit Account No. 07-2069. A duplicate copy of this sheet is enclosed.

Respectfully submitted,

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ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /M.W./

Form PTO-1449 U.S. Department of Commerce  
(Rev. 8-88) Patent and Trademark Office

Attorney Docket No.: 1201.71431

Serial No.: 10/817,361

INFORMATION DISCLOSURE CITATION  
(Use several sheets if necessary)

Applicant: Richard I. Masel et al.

Filing Date: April 2, 2004

Group: 1746

## U.S. PATENT DOCUMENTS

Examiner Initial*	Document Number	Date	Name	Class	Subclass	Filing Date If Appropriate
	3,198,666	08/03/1965	G. Bruneberg et al.			
	3,297,487	01/10/1967	Pomeroy et al.			
	5,004,424	04/02/1991	Larminie			
	5,364,711	11/15/1994	Yamada et al.			
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	6,495,278	10/01/2002	Schmid et al.			

## FOREIGN PATENT DOCUMENTS

Examiner Initial*	Document Number	Date	Country	Class	Subclass	Translation	
						Yes	No
	JP-01227361A	March 7, 1988	Japan			Abs.	

## OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

	A. Wieckowski and R. I. Masel, "UHV and electrochemical studies of CO and methanol adsorbed at platinum/ruthenium surfaces, and reference to fuel cell catalysis," <i>Electrochimica Acta</i> 47, 22-23, 3637-3652 (2002).
	N. Markovic, H. Gasteiger, P. Ross, X. Jiang, I. Villegas and M. Weaver, "Electro-oxidation mechanisms of methanol and formic acid on Pt-Ru alloy surfaces," <i>Electrochimica Acta</i> , 40, 91-98, (1995).
	M. Arenz, V. Stamenkovic, T. J. Schmidt, K. Wandelt, P. N. Ross and N. M. Markovic, "The electro-oxidation of formic acid on Pt Pd single crystal bimetallic surfaces," <i>Physical Chemistry Chemical Physics</i> , 5, 4242, (2003).
	N. Watanabe, K. Iwatsu, A. Yamakata, T. Ohtani, J. Kubota, J. N. Kondo, A. Wada, K. Domen and C. Hirose, "SFG study of formic acid on a Pt(110)-(1x2) surface," <i>Surf. Sci.</i> , 651, 357-358, (1996).
	M. Watanabe, "Electrocatalysis By Ad-Atoms, Part XXIII. Design of Platinum Ad-Electrodes for Formic Acid Fuel Cells with Ad-Atoms of the IVth and the VIth Groups," <i>J. Electroanal. Chem.</i> 250, February 1988, p. 117-125.

Examiner /Monique Wills/ (02/23/2010) Date Considered 02/23/2010

\*Examiner: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /M.W./

Examiner Initial*	Document Number	Date	Name	Class	Subclass	Filing Date If Appropriate
	6,770,394	08/03/2004	Appleby et al.			

	Document Number	Date	Country	Class	Subclass	Translation	
						Yes	No

[illegible]

\*Examiner: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.